State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

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June 29, 1993

Nandra D. Weeks, P.E.
GeoSyntec Consultants
621 N.W. 53rd St., Suite 650
Boca Raton, FL 33487

Re: L0998160003 -- LaSalle County
LaSalle/Carus Chemical Company
Superfund/Technical Reports
Work Plan Review Phase II

Dear Nandra,

After review of the Phase II work plan for the above referenced site, the Agency offers the following comments.

1. Page 17/23. Be more specific on how the thickness and permeability of the sediments and underlying material in the holding pond will be measured. Can the thickness probing and piston coring be effectively done from a boat? Will these methods tell where the sediments end and the underlying material begins?

2. Page 18. A dynamic investigation is effective, be sure to keep the Agency informed prior to adjustments in the scope of work.

3. Page 19. Explain what offsets are and how they will be used as noted in Table 1 on Page 33 and 34 (P-3 through P-6, P-11, P-12 and P-17).

4. Page 25. All soil and sediment samples should be analyzed for total and TCLP metals. Duplicate samples for total and TCLP need not be collected as total and TCLP analysis can be done from the same sample container, providing the wide-mouth glass jar has at least one quart volume (Have ARDL substitute the 8-9 ounce wide-mouth-glass jar for a bigger one).

5. Page 31. Include recommendations with (iv) conclusions.

6. Page 35. Collect an additional 2 sediment samples (for background comparison) far enough up-stream (beyond Carus Chemical and LaSalle Rolling Mills) so as to be safely above any influence from previous Zinc smelting operations. All sediment samples should be of similar consistency (ie. silty sand or whatever) so that comparisons can be made. Comparable sediment samples near the site will be difficult to obtain do to the large amounts of slag in the river, therefore, be prepared to have to dig through large clumps of slag and boulders. Start sampling down-stream locations first working upstream to collect the background sample last.

7. Page 36. Add a note to Table 2a clarifying both Total and TCLP analysis will be analyzed for metals.

8. In the QAPP, add SW-846 analytical methods to Appendix G (and the detection limits to Appendix F) from Table 1-6 of the Pre-Notice Program Analytical Quality Assurance Plan (enclosed). These methods have a lower detection limits and should be used for the soil and sediment samples for TCLP analysis (methods in Table G-1 are fine for the slag/sinter samples). Have ARDL use the method on Table 1-6 where the detection limit is equal to or below the Class I Standard. You may also add this to Page 7 of the FSP (Inorganic Compounds).

9. Page 7 of FSP. How many equipment blank samples will be collected?

10. Page 14 of FSP. Clarify: Grab sample measurements will be placed in a decontaminated beaker.

11. Page 17 of FSP. Has a 5 um cellulose nitrate filter been found for use?

12. FSP. As in the Phase I Work Plan, provide a master table that summarizes all of the sample data for Phase II. This might include the matrix (ie. Soil, GW, investigation derived waste-IDW), sample locations, sample number/location, depth, and analysis (ie. TCL & TCLP).

This concludes the list of comments, sorry for the delay. For questions, please call.

Sincerely,

Timothy J. Murphy

Timothy J. Murpny
Project Manager, Remedial Project Management Section

TJM:tjm user\carus2.rev

cc: Roger C. Threde
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Enclosure

Table 1-6
Inorganic Analytical Parameters and Acceptable Quantitation Limits

Analyte	Method	Water mg/l	Soil mg/Kg
Aluminum	6010A	0.045	4.5
	6020	0.0001	0.01
	7020	0.1	10
Antimony	6010A	0.032	3.2
	6020	0.00002	0.002
	7040	0.2	20
	7041	0.003	0.3
Arsenic	6010A	0.053	5.3
	6020	0.004	0.4
	7060A	0.005	0.5
	7061A	0.001	0.1
Barium	6010A	0.002	0.2
	6020	0.00002	0.002
	7080A	0.1	10
	7081	0.002	0.2
Beryllium	6010A	0.0003	0.03
	6020	0.0001	0.01
	7090	0.005	0.5
	7091	0.0002	0.02
Cadmium	6010A	0.004	0.4
	6020	0.00007	0.007
	7130	0.005	0.5
	7130A	0.0001	0.01
Calcium	6010A	0.01	1
	7140	0.01	1
Chromium	6010A	0.007	0.7
	6020	0.00002	0.002
	7090	0.05	5
	7091	0.001	0.1
Cobalt	6010A	0.007	0.7
	6020	0.00001	0.001
	7200	0.05	5
	7201	0.001	0.1
Copper	6010A	0.006	0.6
	6020	0.00003	0.003
	7210	0.02	2
	7211	0.001	0.1
Iron	6010A	0.007	0.7
	7380	0.03	3
	7381	0.001	0.1
Lead	6010A	0.042	4.2
	6020	0.00002	0.002
	7420	0.1	10
	7421	0.001	0.1
Magnesium	6010A	0.03	3
	7450	0.001	0.1
Manganese	6010A	0.002	0.2
	6020	0.0004	0.04
	7460	0.01	1
	7461	0.0002	0.02
Mercury	7470A	0.0002	
	7471A		0.02
Molybdenum	6010A	0.008	0.8
	7480	0.1	10
	7481	0.001	0.1
Nickel	6010A	0.015	1.5
	6020	0.00003	0.003

Table 1-6 (page 2)
Inorganic Analytical Parameters and Acceptable Quantitation Limits

Analyte	Method	Water ug/l	Soil mg/Kg
Nickel	7520	0.04	4
Potassium	7610	0.01	1
	6010A		
Selenium	6010A	0.075	7.5
	7740	0.002	0.2
	7741A		0
Silver	6010A	0.007	0.7
	6020	0.00004	0.004
	7760A	0.01	1
	7761	0.0002	0.02
Sodium	6010A	0.029	2.9
	7770	0.002	0.2
Strontium	6010A	0.0003	0.03
	7780	0.03	3
Thallium	6010A	0.04	4
	6020	0.00005	0.005
	7840	0.1	10
	7841	0.001	0.1
Tin	7870	0.8	80
Vanadium	6010A	0.008	0.8
	7910	0.2	20
	7911	0.004	0.4
Zinc	6010A	0.002	0.2
	6020	0.00008	0.008
	7950	0.005	0.5
	7951	0.00005	0.005
Cyanide	9010A	0.01	0.01
	9012A	0.01	0.01